JVC

COLOR TELEVISION

EQUALIZER • CINEMA SURROUND • COMPONENT INPUT

AV-29BA16
AV-29BA17B
AV-29BA19B
AV-29MT16
AV-29ST16
AV-29VT16

AV-25MT16

AV-21BA16
AV-21BA17B
AV-21MT16
AV-21VT16

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INSTRUCTIONS

GGT0121-002A-H

Thank you for buying this JVC color television.
To make sure you understand how to use your new TV, please read this manual thoroughly before you begin.

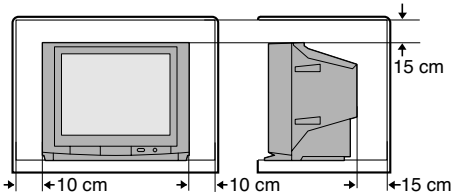
WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION: TO ENSURE PERSONAL SAFETY, OBSERVE THE FOLLOWING RULES REGARDING THE USE OF THIS TV.

1 Operate only from the power source indicated on the rear of the TV.

2 Avoid damaging the power cord and main plug. When unplugging the TV, grasp the main plug. Do not pull on the power cord.

3 Never block or cover the ventilation openings.
Never install the TV where good ventilation is unattainable.
When installing this TV, leave spaces for ventilation around the TV of more than the minimum distances as shown.



4 Do not allow objects or liquid into the cabinet openings.

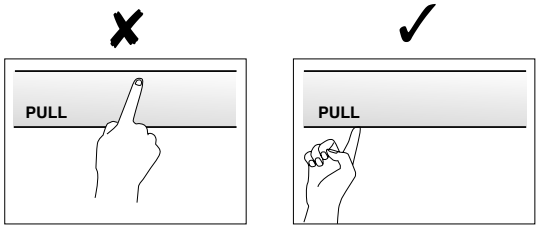
5 In the event of a fault, unplug the unit and call a service technician. Do not attempt to repair it yourself or remove the rear cover.

6 The surface of the TV screen is easily damaged. Be very careful with it when handling the TV. Should the TV screen become soiled, wipe it with a soft dry cloth. Never rub it forcefully. Never use any cleaner or detergent on it.

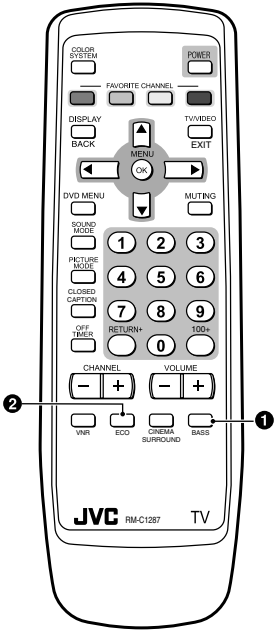
7 This TV can be turned on/off power by connecting/disconnecting the AC plug into AC outlet. While this TV is being installed, enough space should be reserved for connection/disconnecting the AC plug into AC outlet by hand.

8 The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

WARNING: <AV-21M, AV-25M, AV-29M, AV-21B, AV-29B Series>
YOU CAN DETACH THE PROTECT SHEET ON THE TOP AND BOTTOM OF FRONT FRAME IF YOU NEEDED.
THE FRONT BUTTON DOOR OF THE TV SHOULD BE PULLED OUT FROM ITS BOTTOM. DO NOT PRESS THE UPPER PART, OR YOUR FINGER MAY BE PINCHED.



Knowing your TV's features



Main features

DVD MENU	Just connect DVD player to the television. The television will detect DVD signal and display picture on the screen automatically and you can adjust pictures and sound while you are watching DVD as your desire. When disconnect DVD player, the television will display the previous channel.
MaxxBass	MaxxBass enhances bass sound that cannot be reproduced by normal speakers to be heard by our ears.
MTS	You can listen the stereo sound or SAP from TV program broadcasting by MTS system. (SAP: Second audio program.)
CLOSED CAPTION	You can display dialog on the screen from TV broadcasting with Closed caption system. You also may be able to display some information in text form if available.
FAVORITE CH (Channel)	You can register up to four favorite channels for quick recall with one press.
AI ECO SENSOR	TV detects the brightness of your room and automatically adjust the picture brightness to a suitable level for a better eyecare.
ECO MODE	You can adjust TV screen contrast according to the brightness of your room to suitable level for a better eyecare.
AI VOLUME	TV adjusts the volume automatically to the same level for all TV channels to avoid sudden change of the volume when selecting different TV channels or selecting Video Mode.
VNR	You can reduce the picture noise when viewing noisy TV programs or video sources.
TINT	You can adjust TINT setting for all color systems, including PAL.

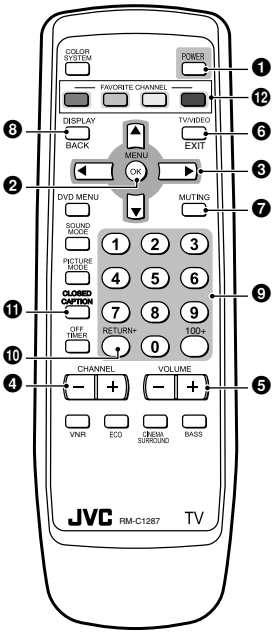
Confirm your TV's functions

Some functions written in this instruction manual may not be available for your TV.
Please see the chart below and check the functions that are equipped for your TV's model number.
The model number is indicated at the rear of your TV. When you press a button concerned to a function that is not available for your TV, it does not work and the logo "Ø" appears on the screen.

NO.	Function \ Model No.	AV-29BA16	AV-29BA17B	AV-29BA19B	AV-29MT16	AV-29ST16	AV-29VT16	AV-25MT16	AV-21BA16	AV-21BA17B	AV-21MT16	AV-21VT16
❶	MaxxBass	—	—	—	O	O	O	O	—	—	O	O
—	PICTURE TILT	O	O	O	O	O	O	—	—	—	—	—
—	MTS	—	—	—	O	O	O	O	—	—	O	O
❷	AI ECO SENSOR	—	—	—	O	O	O	O	—	—	O	O
❷	ECO MODE	O	O	O	—	—	—	—	O	O	—	—

Remote control buttons and basic functions

No.	Press	To
❶	POWER	Turn on or off the TV from standby mode.
❷	MENU/OK	Display menu and confirm selected function.
❸	▲ / ▼ / ◄ / ►	Select and adjust menu function.
❹	CHANNEL -/+	Select the desired channel number.
❺	VOLUME -/+	Adjust the volume level.
❻	TV/VIDEO EXIT	Select TV or video terminal input. On the other hand, you can use this button to EXIT from the menu.
❼	MUTING	Turn off the volume. Press this button again to resume the volume.
❽	DISPLAY /BACK	Display the program number or video terminal number on the screen. On the other hand, you can use this button to return to the previous menu.
❾	0~9, 100+	Select the program number. For three digits program number, press 100+, then press the number button.
❿	RETURN+	a) Return to the frequently view channel with one touch. **1** Choose the channel you want to register. **2** Press and hold RETURN+ button until “RETURN PLUS PROGRAMMED!” appears. To cancel, press and hold RETURN+ button until “RETURN PLUS CANCELED!” appears. b) Return to the previously viewed channel, if you have not set or have cancelled the Return channel as above.
⓫	CLOSED CAPTION	Display information in text which are broadcasted by some TV channels.
⓬	FAVORITE CHANNEL (color buttons: red, green, yellow, blue)	Register and recall 4 favorite channels. 1. Choose the TV channel you want to register then press and hold a color button until “PROGRAMMED! ■" appears. 2. To register other favorite channels, repeat step 1. To recall the favorite channel, press the color button. When the TV is in menu mode, the favorite channel function is not available.



How to operate menus and menus locations

To	Operation	Note
Display the MENU	Press the MENU/OK button ❷. PICTURE MENU is displayed on first press.	To exit the MENU, press the DISPLAY/ BACK button ❽ or choose EXIT menu or TV/VIDEO/EXIT button ❻.
Choose a Top menu	Press ◄/► buttons ❸ to choose a menu title when the cursor is pointing at MENU.	—
Choose a 2nd menu	Press ▲/▼ buttons ❸ to choose a 2nd menu title.	Press ▼ button ❸ to display the next functions.
Display the 3rd menu	Press ▲/▼ buttons ❸ to choose a 2nd menu title. Then press MENU/ OK button ❷.	
Return to the previous menu	Press the DISPLAY/BACK button ❽.	—
Choose the setting of a function	Press ▲/▼ buttons ❸ to choose a function. Then press the ◄/► buttons ❸ to change the setting.	Press the TV/ VIDEO/ EXIT button ❻ to exit from the menu.
Adjust the effect level of a function	Press ▲/▼ buttons ❸ to choose a function. Then press the ◄/► buttons ❸ to adjust the effect level.	
Display the sub menu of a function.	Press the ▲/▼ buttons ❸ to choose a function. Then press MENU/OK button ❷ to display the sub menu.	—

The following chart shows locations of functions in menus. In this manual, location of a function is described as follows:

(MENU) ➔ (Top menu) ➔ (2nd menu)

(MENU) ➔ (Top menu) ➔ (2nd menu) ➔ (3rd menu)

Note: Some functions have the 4th menus as the sub-menus.

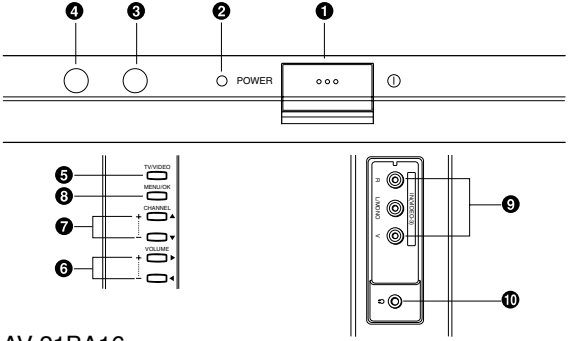
	Top menu	2nd menu	Location	3nd menu	Location
MENU	PICTURE	PICTURE MODE	P.9	–	–
		PICTURE SETTING	P.10	PICTURE	P.10
				BRIGHT	P.10
				DETAIL	P.10
				COLOR	P.10
				TINT	P.10
		WHITE BALANCE	P.10	–	–
		VNR	P.16	–	–
	SOUND	MTS	P.13	–	–
		AI VOLUME	P.14	–	–
		SOUND MODE	P.12	–	–
		EQUALIZER	P.14	–	–
		BALANCE	P.12	–	–
		CINEMA SURROUND	P.13	–	–
		MaxxBass	P.13	–	–
	FEATURES	DVD MENU	P.15	AUTO SIGNAL DETECT	P.15
				DVD PICTURE MODE	P.15
				DVD THEATER STATUS	P.15
				DVD SOUND MODE	P.15
		ON TIMER	P.16	CH	P.16
				ON TIMER	P.16
		OFF TIMER	P.17	–	–
		CHILD LOCK	P.16	–	–
		COMPRESS (16:9)	P.11	–	–
		AI ECO SENSOR/ ECO MODE	P.11	–	–
	INSTALL	AUTO PROGRAM	P.18	–	–
		CHANNEL SUMMARY	P.18	–	–
		COLOR SYSTEM	P.9	–	–
		VIDEO-2 SETTING	P.17	–	–
		BLUE BACK	P.11	–	–
		CLOSED CAPTION	P.16	CAPTION	P.16
				TEXT	P.16
		PICTURE TILT	P.11	–	–
		BEEP	P.17	–	–

TV buttons and functions

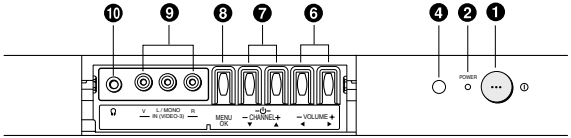
The illustrations shown below is for AV-21BA16 and AV-29ST16 only, which are used for explanation purpose.
Your TV may not look exactly the same as illustrated.

Front of the TV

AV-29ST16

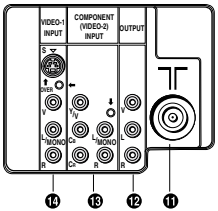


AV-21BA16



Rear of the TV

AV-29ST16



No.	Button/terminal	Description	Page
❶	⏻ (main power)	Press to turn on or turn off the TV's main power.	–
❷	POWER lamp	Indicate the TV's status. No color : TV's main power is being turned off. Red : TV's main power is being turned on. Blink : While the TV is in standby mode, ON TIMER function is in used. While the TV is in turn on mode , OFF TIMER function is in used. Note: When you turn off the power switch while TV is in standby mode, the power lamp will go off in 10 -15 seconds. When you operate the TV, POWER Lamp will be blink.	–
❸	ECO sensor		–
❹	Remote control sensor		–
❺	TV/VIDEO	Press to select TV or Video terminal input or exit from menu.	–
❻	VOLUME -/+	Press to adjust the volume level.	–
❼	CHANNEL -/+	Press to select the desired channel (Both of RF and Video input.)	–
❽	MENU/OK	Press to display the menu.	–
❾	IN (VIDEO-3)	Video and audio input jacks for VIDEO-3 mode.	19
❿	🎧	Headphone jack.	19
⓫	⊓	Aerial socket.	7
⓬	OUTPUT	Video and audio output jacks. (The component video signal cannot be output.)	19
⓭	COMPONENT (VIDEO-2) INPUT	Video or component video, and audio input jacks for VIDEO-2 mode. You can select the input signal by setting the "VIDEO-2 SETTING" function (see page 17).	19
⓮	VIDEO-1 INPUT	Video or S-VIDEO, and audio input jacks for VIDEO-1 mode.	7

How to operate the menus with the TV button

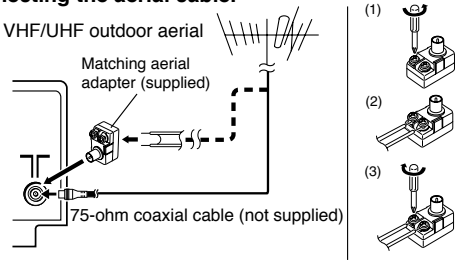
TV button	Work as same as the button on the remote control unit	Note
MENU	MENU/OK button	To display main menu and exit menu by press and hold within 3 seconds after finish setting.
CHANNEL -/+	▼/▲ button	To select menu function.
VOLUME -/+	◄/► button	To choose a Top menu and adjust the desired menu function.

Setting up your TV

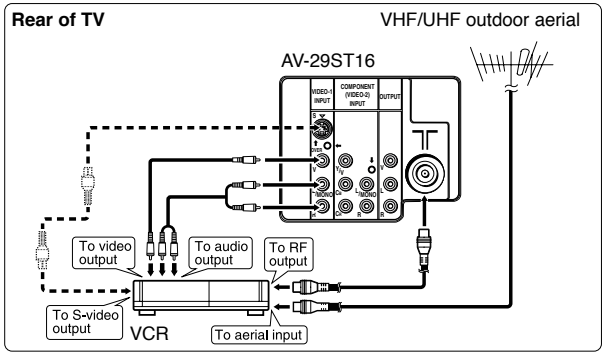
CAUTION

- Turn off the equipment including the TV before connecting.

1 Connecting the aerial cable.



If you connect a VCR, connect the aerial output jack of your VCR and the aerial jack on the TV with aerial cable. Then connect the output jacks of your VCR and the VIDEO-1 input jacks of the TV with the video cable (or S-VIDEO cable if available) and audio cables. For details, see the manual of your VCR.



The illustration shown is just a sample. It may not be same as your TV.

2 Connecting the main plug to the AC outlet.

3 Inserting batteries into the remote control.

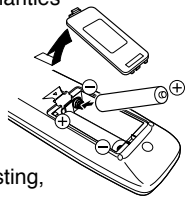
Insert two batteries by following the ⊕ and ⊖ polarities and inserting the ⊖ end first.

CAUTION:

Follow the cautions printed on the batteries.

Notes:

- Use AA/R6/UM-3 dry cell batteries.
- If the remote control does not work properly, fit new batteries. The supplied batteries are for testing, not regular use.



WARNING:
Batteries shall not be exposed to excessive heat such as direct sunshine, fire or the like.

If this symbol is shown, it is only valid in the European Union.

4 Turn on the TV by pressing the main power button.

JVC logo appears on the screen.

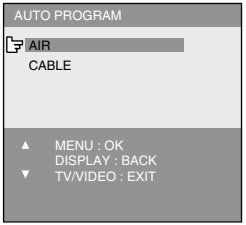
JVC logo will appear on the screen again at the phase of “SETUP TOUR RESTART?” function. Then the initial setting can be performed according to page 8.

Note:

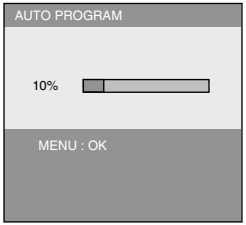
While in the INSTALL menu with the cursor pointing at INSTALL, pressing the blue button will also display the JVC logo.

5 Making the initial settings

Set up your TV by pressing MENU/OK button or waiting for 15 seconds, then operate the TV by following the steps below:

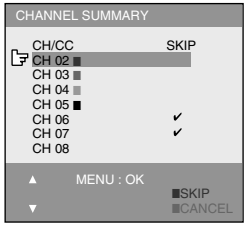


- Press ▲/▼ button or CH +/- key to select AIR or CABLE, press the MENU/OK button.



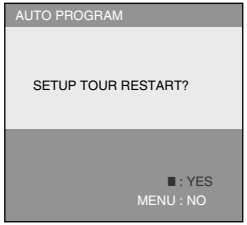
- TV will start searching for the channels.

  To stop AUTO PROGRAM, press MENU/OK button.



- To complete the initial setting, press the MENU/OK button.
  To set undesired channels to be skipped, see page 18.

When turn on the TV at the next time



- "SETUP TOUR RESTART?" will be displayed.
  Press the MENU/OK button to cancel the SETUP TOUR RESTART function.
  If you want to make initial settings again when the next time you turn on the TV, press the Red button to activate the SETUP TOUR RESTART function.

Basic setting for picture

COLOR SYSTEM

You can select the appropriate color system when the picture is not clear or no color appears.
Press the COLOR SYSTEM button to select a setting.
In TV mode: NTSC3.58 MHz (Fixed).
In VIDEO mode:

AUTO → PAL → SECAM → NTSC3.58
NTSC4.43 ←

To operate this function with a menu:

✳ (MENU) ➔ (INSTALL menu) ➔ (COLOR SYSTEM)

For the color system in each country or region, see the table below:

Area	Country or Region	System
Asia, Middle East	Bahrain, Kuwait, Oman, Qatar, United Arab Emirates, Yemen, etc. Indonesia, Malaysia, Singapore, Thailand, India, etc.	PAL
	China, Vietnam, etc.	PAL
	Hong Kong, etc.	PAL
	Islamic Republic of Iran, Lebanon, Saudi Arabia, etc.	SECAM
	Philippines, Taiwan, Myanmar, etc.	NTSC
Europe	Russia, etc.	SECAM
	Czech Republic, Poland, etc.	PAL
	Germany, Holland, Belgium, etc.	PAL
	UK, etc.	PAL
Oceania	Australia, New Zealand, etc.	PAL
Africa	Republic of South Africa, etc.	PAL
	Nigeria, etc.	PAL
	Egypt, Morocco, etc.	SECAM

PICTURE MODE

You can choose the desired picture setting with one-touch.
Press the PICTURE MODE button to select a setting.

SOFT	Softens contrast and sharpness.
BRIGHT	Heightens contrast and sharpness.
STANDARD	Standard picture setting.
USER	You can change this picture setting as you like. Select USER and adjust following items in the PICTURE SETTING menu. (PICTURE, BRIGHT, DETAIL, COLOR, TINT)

When you select VIDEO-2 Mode, you cannot adjust DETAIL.
When you set DVD THEATER STATUS in DVD MENU to ON, you cannot adjust PICTURE MODE.

To operate this function with a menu:

✳ (MENU) ➔ (PICTURE menu) ➔ (PICTURE MODE)

To return the USER setting to default, press the blue button when the PICTURE SETTING menu is displayed.

✳ About the basic operations of the menu, please see the “How to operate menus and menus locations” on page 5.

PICTURE SETTING

You can adjust the desired picture setting when selecting USER in PICTURE MODE.

1 Select USER in PICTURE MODE under PICTURE menu.

✳ (MENU) ➔ (PICTURE menu) ➔ (PICTURE MODE) ➔ (USER)

2 Select PICTURE SETTING in PICTURE menu, then adjust the setting.

✳ (MENU) ➔ (PICTURE menu) ➔ (PICTURE SETTING)

PICTURE	◄ : Lower contrast	► : Higher contrast
BRIGHT	◄ : Darker	► : Brighter
DETAIL	◄ : Softer	► : Higher
COLOR	◄ : Lighter	► : Deeper
TINT	◄ : Reddish	► : Greenish

When you select VIDEO-2 Mode, you cannot adjust DETAIL.

WHITE BALANCE

You can change the white balance of the picture to better match the type of video being viewed.
Select WHITE BALANCE in the PICTURE menu, then choose the desired setting.

✳ (MENU) ➔ (PICTURE menu) ➔ (WHITE BALANCE)

NORMAL	Normal white balance.
COOL	Bluish white.
WARM	Reddish white.

When you set DVD THEATER STATUS in DVD MENU to ON, you cannot adjust WHITE BALANCE.

✳ About the basic operations of the menu, please see the “How to operate menus and menus locations” on page 5.

Advanced setting for picture

AI ECO SENSOR (ECO)/ECO MODE

You can adjust TV screen contrast according to the brightness of your room.

Press the ECO button to select the desired mode.

OFF	Cancel the function.
MODE-1/ECO-1	Mild contrast (recommended.)
MODE-2/ECO-2	Even contrast.
DISPLAY (for AI ECO SENSOR only)	Display the graphic of the function.

To operate this function with a menu:

✳ (MENU) ➔ (FEATURES menu)
➔ (AI ECO SENSOR / ECO MODE)

When you set DVD THEATER STATUS in DVD MENU to ON, you cannot adjust AI ECO SENSOR / ECO MODE.

Note : AI ECO SENSOR for M and S series.
ECO MODE for B series.

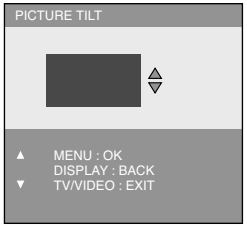
Correcting the Slanting Picture (PICTURE TILT)

You can correct the picture tilt caused by the earth's magnetic force.

1 Select PICTURE TILT in the INSTALL menu, then press MENU/OK button.

✳ (MENU) ➔ (INSTALL menu) ➔ (PICTURE TILT)

The following display appears.



2 Press the ▲/▼ buttons until the picture becomes level. Then press the MENU/OK button.

COMPRESS (16:9)

You can convert a normal picture (4:3 aspect ratio) into a wide picture (16:9 aspect ratio).

Select COMPRESS (16:9) in the FEATURES menu, then choose ON or OFF.

✳ (MENU) ➔ (FEATURES menu) ➔ (COMPRESS (16:9))

BLUE BACK

You can set the TV to automatically change to a blue screen and mute the sound if the signal is weak or absent, or when there is no input from an antenna.

Select BLUE BACK in the INSTALL menu, then choose ON or OFF.

✳ (MENU) ➔ (INSTALL menu) ➔ (BLUE BACK)

If you wish to continue viewing the poor picture, off the BLUE BACK function.

✳ About the basic operations of the menu, please see the "How to operate menus and menus locations" on page 5.

Basic setting for sound

SOUND MODE

You can choose the desired sound setting.
Select the SOUND MODE in SOUND menu, then choose the setting.

✳ (MENU) ➔ (SOUND menu) ➔ (SOUND MODE)

USER	You can change this sound setting as you like. Select USER and adjust the frequencies in EQUALIZER (100, 300, 1K, 3K, 8K Hz). For details, see “EQUALIZER” on page 14.
SOUND TURBO	Emphasize on low and high frequency levels.
THEATER	Emphasize on movie sound.
MUSIC	Emphasize on music effect.
NEWS	Emphasize on vocal sound.

When you select VIDEO-2, you cannot adjust SOUND MODE function. You can adjust it in DVD Menu.

When SOUND MODE is set to SOUND TURBO, EQUALIZER, CINEMA SURROUND and MaxxBass functions are not available.

BALANCE

You can adjust the volume balance between the left and right speakers.
Select BALANCE in SOUND menu, then adjust the setting.

✳ (MENU) ➔ (SOUND menu) ➔ (BALANCE)

✳ About the basic operations of the menu, please see the “How to operate menus and menus locations” on page 5.

Advanced setting for sound

CINEMA SURROUND

You can enjoy an enhanced sound for wider audience.
Press the CINEMA SURROUND button to select a setting.

OFF	Cancel the function.
ON	Listen to sound with wider audience effect.

This function is not available when SOUND MODE is set to SOUND TURBO.
To operate this function with a menu:

✳ (MENU) ➔ (SOUND menu) ➔ (CINEMA SURROUND)

MaxxBass

You can enjoy an enhanced bass sound which cannot be reproduced by normal speakers.
Select MaxxBass in SOUND menu, then choose the desired setting.

✳ (MENU) ➔ (SOUND menu) ➔ (MaxxBass)

OFF	MaxxBass is turned off.
HIGH	MaxxBass effect is high.
LOW	MaxxBass effect is low.

This function is not available when SOUND MODE is set to SOUND TURBO.
“MaxxBass” is a registered trademark of Waves Audio Ltd. in the USA, Japan and other countries.

MTS

You can enjoy the stereo and SAP broadcasted programs.
Select the MTS in SOUND menu, then choose the desired mode.

✳ (MENU) ➔ (SOUND menu) ➔ (MTS)

STEREO	Select stereo sound.
SAP	Select second audio programs.
MONO	Select monaural sound.

This function is not available in video mode.

✳ About the basic operations of the menu, please see the “How to operate menus and menus locations” on page 5.

EQUALIZER

You can adjust the sound level of each frequency when selecting USER mode in SOUND MODE.

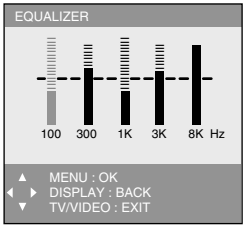
1 Select USER in SOUND MODE under SOUND menu.

✳ (MENU) ➔ (SOUND menu) ➔ (SOUND MODE) ➔ (USER)

2 Select EQUALIZER in SOUND menu.

✳ (MENU) ➔ (SOUND menu) ➔ (EQUALIZER)

The following display appears.



3 Select and adjust the desired frequencies.

4 Press the MENU/OK button to exit the menu.

Adjusting high frequency will affect higher pitch sound and vice versa.
When you select VIDEO-2, you cannot adjust EQUALIZER.
When you set DVD SOUND MODE in DVD MENU to USER, you can adjust EQUALIZER under SOUND menu.

AI VOLUME

You can adjust the volume of all the channels and video inputs to the same level automatically depends on the strength of signal of the sources.
Select AI VOLUME in SOUND menu, then choose ON or OFF.

✳ (MENU) ➔ (SOUND menu) ➔ (AI VOLUME)

✳ About the basic operations of the menu, please see the “How to operate menus and menus locations” on page 5.

DVD Menu

AUTO SIGNAL DETECT

When the DVD input signal is detected, the input mode will be changed to VIDEO-2 automatically. And when the DVD input signal is not detected, the input mode will be changed to RF previous input mode.

Select AUTO SIGNAL DETECT in DVD MENU under FEATURES menu then choose ON or OFF (Factory setting is ON).

✳(MENU) ➔ (FEATURES menu) ➔ (DVD MENU) ➔ (AUTO SIGNAL DETECT)

Press the “POWER ON” button on the DVD players or VCRs (follow by the “PLAY” button for VCRs) so that the signal can be detected.

DVD PICTURE MODE

You can enhance the picture quality of the DVD or VIDEO-2.

Select DVD PICTURE MODE in DVD MENU under FEATURES menu, then choose the desired setting.

✳(MENU) ➔ (FEATURES menu) ➔ (DVD MENU) ➔ (DVD PICTURE MODE)

OFF	Cancel the function.
CLEAR-1	Select when the disc is with lots of noise (To soften the picture).
CLEAR-2	Select when the disc is with less noise (To sharpen the picture).

DVD THEATER STATUS

You can enjoy an enhanced picture quality for movie playback in a dark room, like watching a movie in the theater.

Select DVD THEATER STATUS in DVD MENU under FEATURES menu, then choose ON or OFF.

✳(MENU) ➔ (FEATURES menu) ➔ (DVD MENU) ➔ (DVD THEATER STATUS)

ON	Enjoy movie playback with suitable color temperature, sharp subtitles and improved gradation for black, like in a theater.
OFF	Cancel the function.

When you set DVD THEATER STATUS to ON, PICTURE MODE, WHITE BALANCE and AI ECO SENSOR / ECO MODE functions are not available.

DVD SOUND MODE

You can choose different sound setting for viewing different types of DVD content.

Select DVD SOUND MODE in DVD MENU under FEATURES menu, then choose the desired setting.

✳(MENU) ➔ (FEATURES menu) ➔ (DVD MENU) ➔ (DVD SOUND MODE)

MUSIC	Select when watching a music concert.
USER	Select if you want to adjust the sound setting to your preference.
DRAMA	Select when watching a drama movie.
THEATER	Select when watching an action movie.

When you set DVD SOUND MODE in DVD MENU to USER, you can adjust EQUALIZER under SOUND menu.

✳ About the basic operations of the menu, please see the “How to operate menus and menus locations” on page 5.

Customized setting

VNR

You can reduce the picture noise.
Select VNR in PICTURE menu, then choose a setting of VNR function.

✳ (MENU) ➡ (PICTURE menu) ➡ (VNR)

OFF	VNR is turned off.
AUTO	Effect of VNR is automatically controlled.
MIN	Effect of VNR becomes minimum level.
MAX	Effect of VNR becomes maximum level.

If you select MAX, the picture becomes softer even if the original picture is sharp.
When you select VIDEO-2, you cannot adjust VNR function.

CLOSED CAPTION

If they are included in a program, you can view closed captions or text information.

Press the CLOSED CAPTION button to select a setting.

OFF → CLOSED CAPTION → TEXT → (OFF)

To operate this function with a menu:

1 Select the CLOSED CAPTION in INSTALL menu, then choose "CAPTION" or "TEXT".

✳ (MENU) ➡ (INSTALL menu) ➡ (CLOSED CAPTION)

2 Press the ◄/► button to select the desired caption or text channel.

CHILD LOCK

You can disable the front control buttons of the TV.
Select CHILD LOCK in the FEATURES menu, then choose ON or OFF.

✳ (MENU) ➡ (FEATURES menu) ➡ (CHILD LOCK)

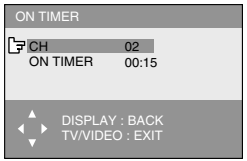
ON TIMER

You can set the TV to turn on automatically from standby mode at a set channel and time.

1 Select ON TIMER in the FEATURE menu.

✳ (MENU) ➡ (FEATURES menu) ➡ (ON TIMER)

The following display appears.



2 Choose the CH (channel) by pressing the ◄/► button.
External input, AV position and any un-preset channel cannot be chosen for CH.

3 Set the ON TIMER to your desired period of time by pressing the ◄/► button. ON TIMER starts. You can set the period of time to a maximum of 12 hours in 15-minute intervals.

To off the ON TIMER, set the ON TIMER to OFF.
Note : If TV is not in standby mode when ON TIMER is reach the setting time, this case is not available.

✳ About the basic operations of the menu, please see the "How to operate menus and menus locations" on page 5.

OFF TIMER

You can set the TV to turn off automatically to standby mode after a set time.
Press the OFF TIMER button to select a desired period of time.

You can set the period of time to a maximum of 120 minutes in 10 minute intervals.

To operate this function with a menu:

✳ (MENU) ➔ (FEATURES menu) ➔ (OFF TIMER)

When the remaining elapse time is one minute, “GOOD NIGHT!” appears on the screen.
You can display the OFF TIMER menu again to confirm or change the remaining time.

VIDEO-2 SETTING

You can set the VIDEO-2 SETTING according to the video signal output from external devices connected to the VIDEO-2 terminal.
Select VIDEO-2 SETTING in INSTALL menu, then choose a setting (Factory setting is COMPONENT).

✳ (MENU) ➔ (INSTALL menu) ➔ (VIDEO-2 SETTING)

VIDEO	If a normal video signal (composite video signal) is input.
COMPONENT	If a component video signal ($Y/C_B/C_R$) is input.

You must choose a setting according to the signal that you input to VIDEO-2. (If you input the VIDEO Signal or VCR Signal to VIDEO-2, you must set VIDEO-2 SETTING to VIDEO.)

For connecting methods, see “Additional Preparation” on page 19.

BEEP

You can use the BEEP function to alert you during AUTO SIGNAL DETECT, AI ECO SENSOR Detect, Stereo Detect, ON TIMER/OFF TIMER operations and when some buttons on the remote control are pressed.
Select BEEP in the INSTALL menu, then choose ON or OFF.

✳ (MENU) ➔ (INSTALL menu) ➔ (BEEP)

When the volume is level 0, then BEEP function is not available.

DISPLAY

You can display the program number and video terminal number on the screen.

Press the DISPLAY button to display the indication on the screen.

✳ About the basic operations of the menu, please see the “How to operate menus and menus locations” on page 5.

TV channel presetting

To register the TV channels automatically (AUTO PROGRAM)

You can register the TV channels into the TV's channel list automatically.

1 Display the INSTALL menu.

✳ (MENU) ➔ (INSTALL menu)

2 Choose AUTO PROGRAM, then press the MENU/OK button.

3 Press the ▲/▼ button to select AIR or CABLE, then press the MENU/OK button.

AUTO PROGRAM function starts, and the channels received are registered automatically.

4 The CHANNEL SUMMARY menu appears.

CHANNEL SUMMARY

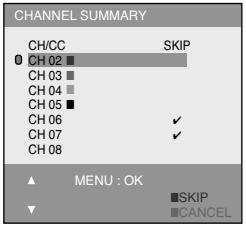
You can set undesired channels to be skipped.
Channels are to be skipped cannot be selected by the CHANNEL -/+ button.

1 Display the INSTALL menu.

✳ (MENU) ➔ (INSTALL menu)

2 Choose CHANNEL SUMMARY, then press the MENU/OK button.

CHANNEL SUMMARY menu appears.



3 Choose the channel which you want to skip.
The skip can be set to all channels of AIR (CH02-CH69) and CABLE (CC01-CC125).

4 Press the yellow button to skip the channel.
To cancel the skip, press the blue button.

5 Press the MENU/OK button to exit the menu.

✳ About the basic operations of the menu, please see the "How to operate menus and menus locations" on page 5.

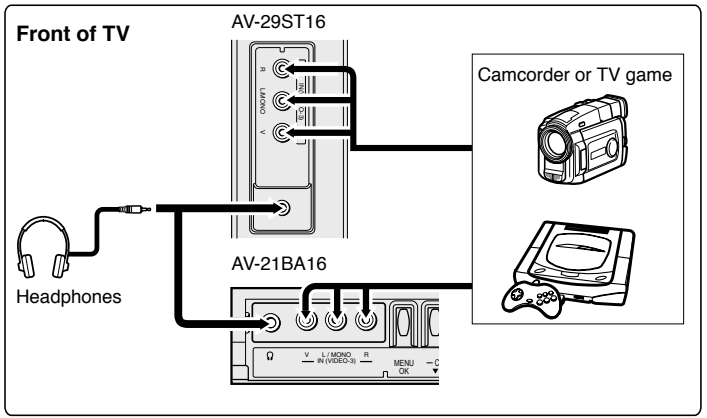
Additional preparation

The illustrations shown in this section are for AV-21BA16 and AV-29ST16 only, which are used for explanation purpose. Your TV may not look exactly the same as illustrated.

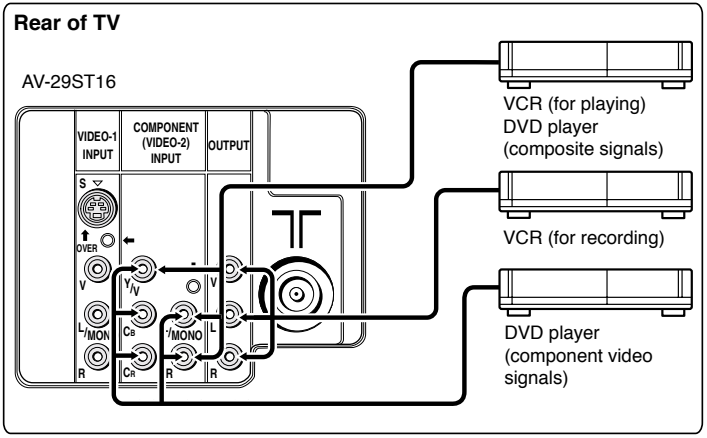
Before connecting

- Read the manuals provided with the devices for the proper connection.
- Turn off all the devices including the TV.
- Note that connecting cables are not supplied.

Connecting to front video input terminals



Connecting to rear component/video input terminals and output terminals



When connecting to COMPONENT (VIDEO-2) input, depending on the connection, choose the appropriate video input using the menu (see “VIDEO-2 SETTING” on page 17)

Troubleshooting

If a problem occurs when you are using the TV, check the below troubleshooting guide before calling for repair.

• No picture, no sound	• Deactivate the BLUE BACK function if it is turned on.
• Snowy picture	• Check the aerial cable and its connection with the TV.
• Stripes appear on the picture	• Interference occurs caused by other devices such as an amplifier, personal computer, or a hair drier. Move such devices away from your TV.
• Double-pictures (ghosting) occur	• Interference occurs caused by signal reflecting from mountains or building. Try to adjust the aerial's direction or use a better directionality antenna.
• Poor picture	• Choose the appropriate color system. Refer to "COLOR SYSTEM" on page 9. • Adjust the COLOR or BRIGHT setting. Refer to "PICTURE SETTING" on page 10.
• White and bright still image look as if it were colored	• Inevitable phenomenon due to the nature of the picture tube. This is not a malfunction.
• Top of the image from software products or video tape is distorted	• This is due to the condition of the video signal whereby the image was not recorded properly. This is not a malfunction.
• Poor sound	• Adjust the sound frequency properly. Refer to "EQUALIZER" on page 14.
• Stereo or SAP sound is unclear	• TV channel reception is poor. Change the stereo/ SAP mode to mono sound (see page 13).
• Cannot operate the remote control	• The batteries may be exhausted. Replace with new batteries (see page 7). • Ensure that you are operating the remote control at less than seven meters from the front of your TV.
• Cannot operate the menus	• Press TV/VIDEO button to return to TV mode and try operating the menus.
• Cannot operate the front control buttons	• Deactivate the CHILD LOCK function if it is turned on (see page 16).

• Color patches appear at the corner of the screen	• This may due to the magnetized device such as a speaker near to your TV. Keep the device apart from your TV. Alternately, you can also use the magnetic-shielded speaker.
• Picture is tilted	• This may due to the earth magnetism. Refer to "PICTURE TILT" on page 11 to correct the tilt.
• Image takes a short period to be displayed	• Image required time to stabilize before display. This is not a malfunction.
• TV may emit crackling sound	• This is due to a sudden change in temperature and it is not a malfunction. If the crackling sound is too frequent, request your service technician for inspection.
• Feel a slight electric shock when touching the TV screen	• This is due to the static electricity of the picture tube and it will not harm the human body. This is not a malfunction.
• The Auto Signal Detect function does not work	• Please check that the AUTO SIGNAL DETECT function is on or off. • Turn the VCR or DVD player off, wait a while, then turn it on again. • Inspect the video cable connection on VIDEO-2 that they are connected properly.
• Suddenly, a channel or input was changed to VIDEO-2 inputs.	• Some VCRs and DVD players can trigger Auto Signal Detect even after you choose a different input. • Please turn off the AUTO SIGNAL DETECT function.
• "PLEASE DISCONNECT VIDEO-1 CABLE!" appears on the screen.	• Please disconnect either S-VIDEO cable or video input cable from Video-1 input.

Specifications

TV RF systems

M

Color systems

TV mode:	NTSC3.58 MHz
VIDEO mode:	PAL, SECAM, NTSC3.58 MHz, NTSC4.43 MHz

Receiving channels

VHF low channel (VL), VHF high channel (VH), UHF channel (U)
Receives cable channels in mid band, super band and hyper band.

Power requirements

AC 110 to 240 V, 50 Hz / 60 Hz

External input / output

VIDEO-1:	S-video input, VIDEO input, AUDIO L/R input
VIDEO-2/COMPONENT:	VIDEO input, AUDIO L/R input, COMPONENT VIDEO ($Y/C_B/C_R$) input
VIDEO-3:	VIDEO input, AUDIO L/R input
OUTPUT:	VIDEO output, AUDIO L/R output
Headphone jack:	Stereo mini jack (3.5 mm diameter)

Sound-multiplex systems

MTS (Multi-channel Television Sound) (Except AV-29BA16, AV-29BA17B, AV-29BA19B, AV-21BA16, AV-21BA17B)
AV STEREO (For AV-29BA16, AV-29BA17B, AV-21BA16, AV-21BA17B)

Viewing Screen Size (Visible area)

AV-21BA16/AV-21BA17B	508 mm
AV-21MT16	508 mm
AV-21VT16	508 mm
AV-25MT16	600 mm
AV-29BA16/AV-29BA17B	676 mm
AV-29BA19B	676 mm
AV-29MT16	676 mm
AV-29VT16	676 mm
AV-29ST16	676 mm

Design and specifications subject to change without notice.

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